

Hobbies

WEEKLY

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February 23rd, 1935

2^D

Vol. 79. No. 2053

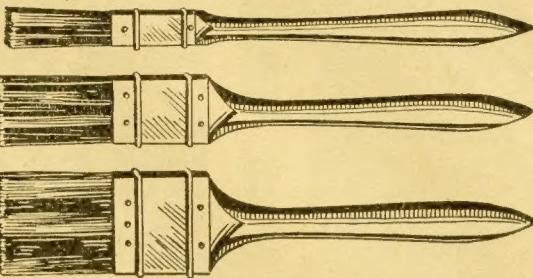
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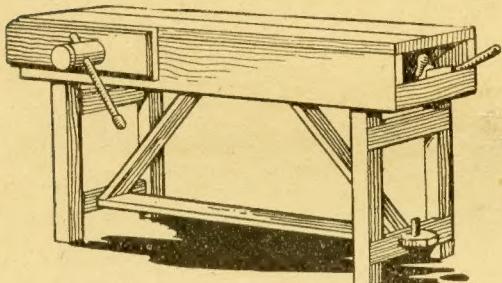
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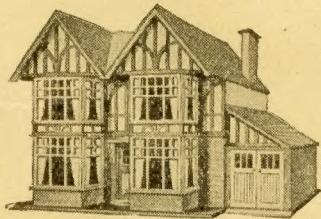
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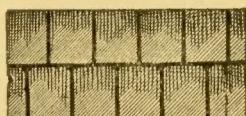
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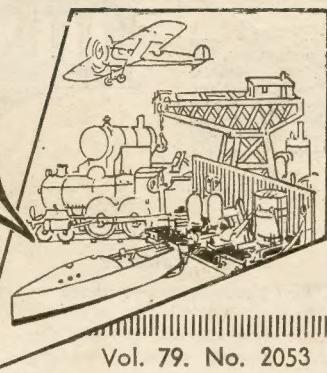


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Hobbies

WEEKLY



February 23rd. 1935

Letters should be addressed to
The Editor, Hobbies Weekly
Dereham, Norfolk.

Vol. 79. No. 2053

WELL, what do you think of the Wool Winder? Is it not just the thing which all your knitting friends will want? Quite simple to make and so cheap that you should be able to make a good spot of money at it.

FOR some time past, too, I have had an expert working on a model electric "Titan" crane. The result of his labour you will see next week when details for making it will be given. It is a real working model driven by batteries and a Trix dynamo. Full size drawings will be printed on the usual sheet, and a parcel of wood for the parts supplied.

THIS is the first chance I have had to mention the winners of two Overseas Competitions which have now been judged. The No. 1 Crossword Prize was awarded to Tan Gan Choo of Penang, and the goods have been forwarded.

THE other contest was the Silhouette Competition and entries came from as far as China, Australia and New Zealand. All the prizes have been sent, including a number of Consolation ones for specially good efforts. The principal prizes were awarded to Amir Khan, of Natal, R. Ramamoorthy, of Trichinopoly, S. India; Rudolf Trimmel of Wien, Austria, Bill Willis, of Moose Jaw, Sas, Canada and S. R. Sthirakoses, of Bangkok, Siam.

THE Duke of Gloucester has acquired two new hobbies during his journeys. He is collecting souvenir railway time-tables of his trips, and all the menu cards on the Royal trains.

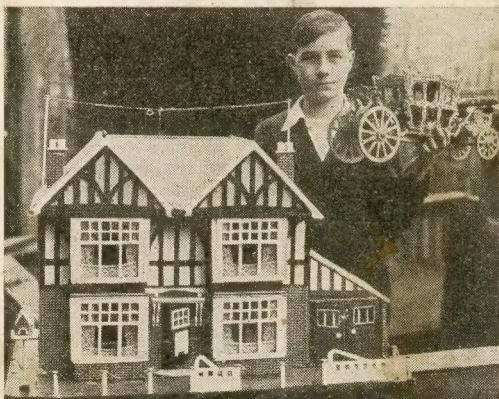
These include not only his own, which are printed on satin, but also those in the other dining-cars, which one may add, contain the same items as the Royal menu. At one country town the Duke surprised the cashier in the hotel office, by asking if she could secure him a menu. He had forgotten to put his in his pocket.

THE pieces of work illustrated are two of our most popular designs, as executed by L. H. Harrison of Portsmouth Road, Southampton, whom you see proudly holding the Lord Mayor's Coach. He is to be congratulated on being able to complete the works satisfactorily.

BY the way, if you are writing to me at the same time as you order any goods from Hobbies Ltd., will you put my part on a separate sheet of paper. You see, goods are sent out by a totally different department, and it is impossible for me to have all orders, or to hold up the goods until the letter has been answered. Don't forget, will you? Thanks!

MODELS of the Statue of Liberty, the Manchester gasometers and St. Paul's Cathedral that fit into three matchboxes have been made by Mr. Randolph O. Douglas, who lives in a cottage at the foot of the Peveril Castle, Castleton, not far from Buxton. He has made a greenhouse which stands on his thumb nail, containing 42 plant pots and flowers in bloom, and a working electric motor which is so small that it can be covered by a thimble. He has carved a pair of tongs from an ordinary match. All models are made without using a magnifying glass.

The Editor.



Send your own simple tips to The Editor, Hobbies Weekly, Dereham, Norfolk. Keep them short and add rough pencil sketches if possible.

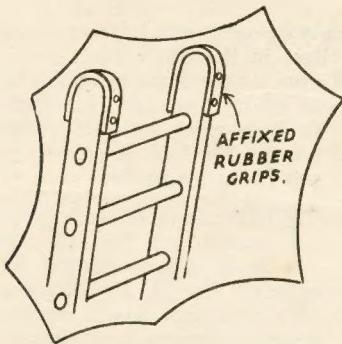
HINTS AND TIPS



For original Tips published the sender will receive one of Hobbies own Pocket Tape Measures. We cannot acknowledge or print all tips

Safety Ladder

TWO pieces of rubber nailed on to the top of a ladder as shown in the diagram will prevent the ladder slipping when it is being



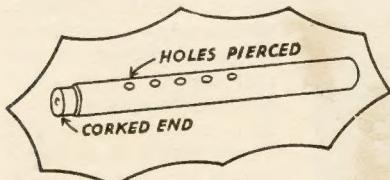
supported against a smooth wall. A piece of old motor tyre or inner tube is quite suitable if nailed on very firmly.

Use for Broken Drill Bits

A BROKEN bit of Hobbies drills can be quickly and easily converted into a handy screwdriver by simply filing the bit at the point where it becomes large at its base to the shape of a screwdriver point. If then inserted in the drill in the usual manner it will be quite efficient for small size screws and much quicker than the ordinary screwdriver.

A Home-made Flute

WHEN you have an old piece of bamboo free from joints, plug one end up with a cork just



leaving a little hole for wind. Then bore five or six holes as illustrated. To stop your mouth from sticking, when playing the instrument, put a little oil on the cork.

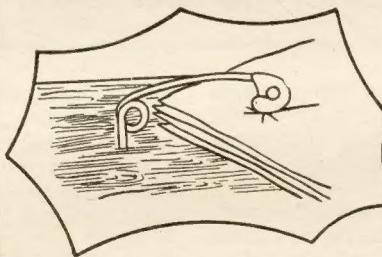
A Shoe Shiner
AN effective way of cleaning damp boots or shoes is to drop four or five drops of paraffin into the blacking. The boots will then shine much more easily.

For a Sticky Valve

IF you find that the valve on your cycle tyre gets fixed, heat it with a lighted match or spill and you will find that the wind in the tyre will blow the valve out. The same will apply to immovable nuts; when heated they will easily unscrew.

A Paper Holder

OBTAIN a fairly large safety pin, cut about half the pin off with a file and knock it in the



desk or table. Then simply lift up, put the papers under and it will fly back like a spring, holding the papers firmly, as seen in the drawing herewith.

Instead of Turpentine

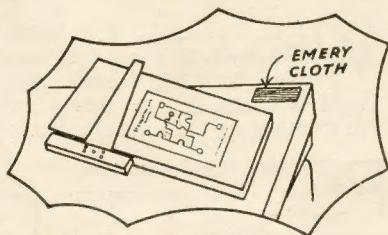
IF ever you are without turpentine to take paint off a small brush, a good way to solve your difficulty is to hold a piece of soap under lukewarm tapwater and rub your brush on it. Do this several times and you will see the paint vanishing.

Garden Hint

TO make vegetables grow, sprinkle them over with washing suds and in a few days you will see them reviving.

A Sharpener

A PIECE of emery paper nailed to the edge of a table or writing desk is useful for sharpening pencils. The illustration shows



the manner in which it can be done. A medium or fine grade of paper should be used.

Cyclists Wind Shields

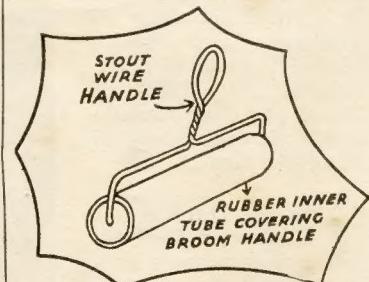
IF you have an old pair of gauntlets that have worn out at the fingers and are not worth mending, try this tip that will shield your hands from the cold. Cut off the gauntlet part from the fingers, or just below, and sew them to your handlebars from the top of grips to prevent slipping.

Invisible Ink

WRITE with the juice of a lemon or an orange and develope the writing by holding it near the fire for a few moments.

A Cheap Squeegee

PROCURE a portion of a broom handle about six inches in length, and plane and glasspaper it down to fit a piece of inner tubing. In each end, bore a hole about $\frac{1}{8}$ in. in diameter and



about $\frac{1}{8}$ in. deep. Bend a piece of fairly stiff wire into the shape of a handle and fit together as shown in the sketch herewith.

A HOME-MADE WOOL WINDER

A novel but thoroughly useful article made in wood. Just the thing to make money with in selling your work.

THREE is no doubt that the design sheet offered with this week's issue will be one of the most popular we have published for some time. It fills a great want and should be just the class of article to make up and sell to any lady friend or to provide for bazaar stalls or functions of a similar nature.

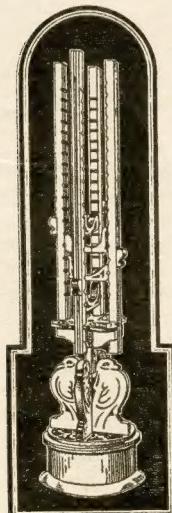
Knitting is a popular pastime with women in most homes, but one of the bugbears is the winding of the wool from the skein into a ball. This usually entails some unfortunate person having to hold it, or having the wool lie over the back of a chair whilst it is wound. Both these operations are an inconvenience the Wool Winder, illustrated, overcomes.

Compact when folded

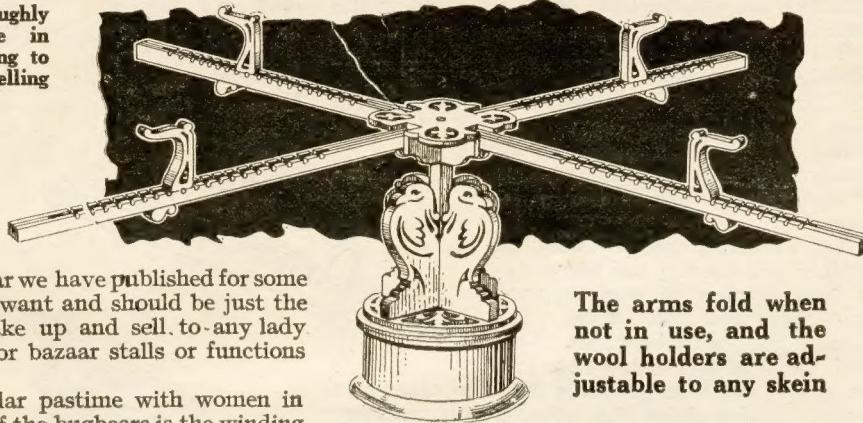
The use of the article is shown in the photograph herewith, whilst the parts required are set out in full size on the pattern sheet and can easily be cut with a fretsaw from thin fretwood and plywood.

To save further trouble, too, a complete parcel of the necessary wood is available, so the pattern can be pasted down to the various parts, cut out, cleaned up, and then assembled in the usual way. The parcel supplied, consists of mahogany for the main parts, plywood for the arms, and whitewood for the ornamental brackets cut out in bird features.

The thickness of the various parts required is shown against



The Winder with arms folded.



The arms fold when not in use, and the wool holders are adjustable to any skein

The operation of the Winder is simple. The circular base is weighted and the top of it forms a turntable, in the centre of which is a brass spike projecting about $\frac{1}{2}$ in. This spike operates in a hole on the underside of the upper portion, which, in turn, revolves as the wool is wound off.

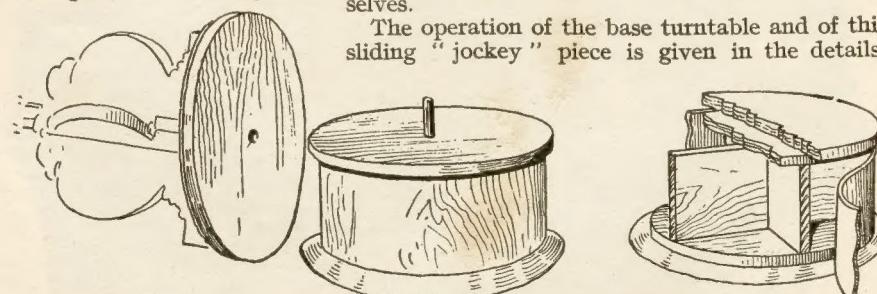
As all skeins are not the same length, an ingenious method has been planned to allow a special "jockey" piece to be fixed on the arm at any given point. This is made up as an independent piece and slides along a hollow arm as seen in the picture and details.

When the skein is fitted on it, the peculiar shape pulls the part square, and a projecting pin on the underside engages with the opening on the arm so it cannot slide along.

Adjustable Lengths

If a long skein of wool is used, the four loose "jockeys" are slid further out towards the end. If a short skein is to be wound, the "jockeys" can be brought inwards to a suitable distance. In both cases the wool should be fairly taut round these upright brackets, and in winding, is drawn off in line and slightly above the revolving arms themselves.

The operation of the base turntable and of this sliding "jockey" piece is given in the details.



Two pictures of the base showing the swivelling pin and how the base itself is constructed.

A Wool Winder—(continued)

The arm on the design sheet is just 14ins. long and this allows for a very large skein to be wound. If these large skeins are not likely to be used, it is quite a simple matter to fix a shorter arm by decreasing the length. If the pattern is cut across, and, say, five of the little semicircular grooves omitted, this will reduce it suitably.

The drawings herewith, and on the pattern sheet, illustrate the construction, but a few hints on the assembly of the article may be helpful.

The lower base is cut from $\frac{1}{4}$ in. wood and has a rounded edge. Then take the two inner discs (the circles of $\frac{3}{8}$ in. diameter) and between them glue at right-angles cross stays which are halved together at A. These cross stays can also be screwed and then the whole glued to the base.

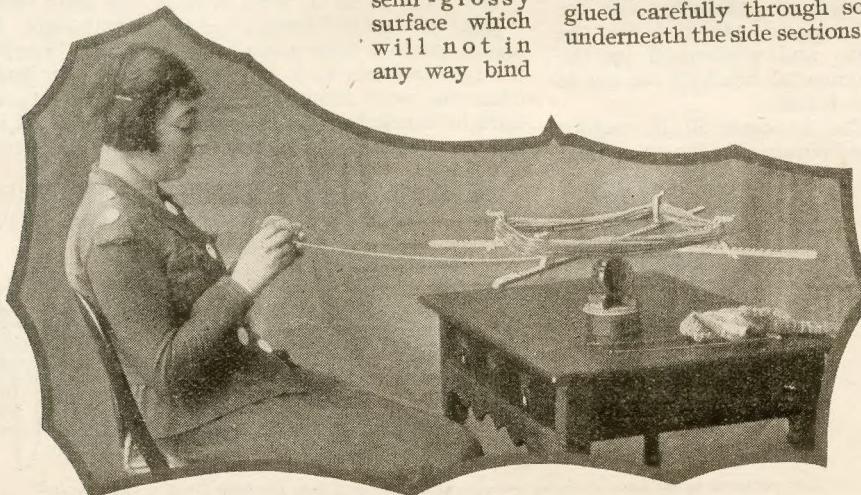
There is thus a recess between the bottom and the top, and round this is bent a piece of thin plywood 13ins. long and 1 $\frac{1}{2}$ ins. wide. The grain of this should be across. Glue and nail one end to the edge of a cross stay and then gradually draw the other part round. Before doing this, however, it is necessary to weight the base, and small round shot should be added to each of the compartments formed by the cross stays or some melted lead placed in to give weight and stability.

Another method of doing this is to leave off the top covering and to put the plywood side round first. Then bore a hole above each of the compartments and pour the shot or lead in. The top covering is replaced afterwards.

The Pivot Pin

This base is finished by having a thick metal pin driven in through the centre about $\frac{1}{8}$ in. deep. The hole can be bored so the piece of $\frac{1}{8}$ in. diameter brass or steel fits tightly and projects above the table top $\frac{1}{8}$ in.

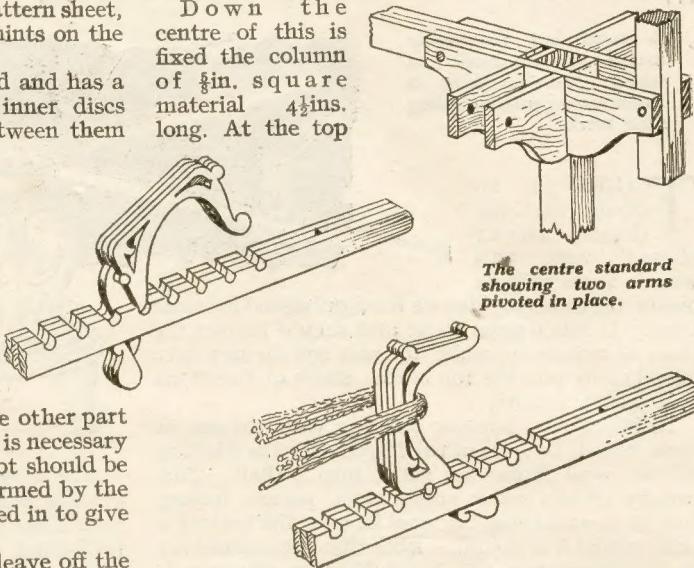
Clean up this top cover thoroughly before putting in the brass pivot, and have a perfectly smooth semi-glossy surface which will not in any way bind



the other rotating part when it is fitted.

Now for the upper revolving portion. The four bird uprights are fretted, cleaned up and then fixed to the mortise and tenon joints B into the two pieces forming the turntable base. The fretted top is glued over the other base, which is a little larger.

Down the centre of this is fixed the column of $\frac{5}{8}$ in. square material 4 $\frac{1}{2}$ ins. long. At the top



The centre standard showing two arms pivoted in place.

Two pictures of the wool holder showing the dowel piece which locks in the arm.

of this column are fitted the arm holders and table supports. The four pieces are halved together round the central column which comes flush.

Before finally fitting it in place, prepare and complete the arms which are formed of two pieces of $\frac{3}{16}$ in. thick plywood spaced at the ends by another $\frac{3}{16}$ in. thick piece.

The arms in turn, are fitted with a loose "jockey" piece, details of which are given. The middle section of the Wool Holder has a hole carefully drilled to take a piece of $\frac{3}{16}$ in. dowel rod. This is glued carefully through so it rests immediately underneath the side sections glued to the middle one.

Two at Once

The [dowel] pin makes contact in the grooves of the arm, whilst the bottom end of the "jockey" piece is prevented from sliding through by two tiny shaped parts (E) glued on as shown in the detail. In cutting the arm be careful to get the semicircular grooves opposite each other so the

(Continued on page 524)

TWO OAK HAT AND COAT RACKS

We give this week alternative suggestions for a Hat and Coat Rack, suitable for a small Hall. The racks should be made up in Oak and either french polished or stained light and waxed polished.

They are both 3ft. long but this measurement can easily be reduced or increased to suit any particular fancy. The construction is much the same in each, being made up of one central long rail with two ends framed on to it.

The First Style

We will deal with that Rack shown at the top of our sketch (Fig. 1). In this, the central rail will first be prepared and cut square from $\frac{1}{2}$ in. wood, 26ins. long by 9ins. wide. Measure off 13ins. from one end and draw a line across which will serve as a centre line for setting out the 1in. squares shown in Fig. 2. Five squares should be set out on one side only of the centre line while the width of the board should, of course, show nine squares. All the lines should be drawn lightly in pencil and then the simple lines of the ornament traced in carefully through these guide lines. The shaping to the centre of the top of the rail may be drawn in also by means of the squares. This done, a pencil tracing should be taken of those lines which are to be transferred to the opposite side of the centre line and the

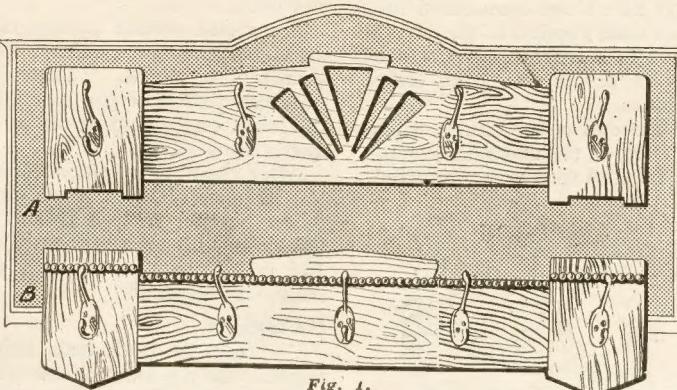


Fig. 1.

tracing turned over and either held firmly or pinned down while a piece of carbon paper is placed underneath. Go over the lines again with a hard pencil and so complete the entire outline ready for cutting out with the fretsaw.

Use a coarse blade and keep well to the lines in cutting and clean off any ragged edges that remain at the back of the rail. The two ends of the latter must next receive attention and from the lower straight edge set up 6ins. and mark in a margin of 1in. which is the width of the dovetail tenon.

From Fig. 3 the measurements can be taken direct for this tenon, and it only remains after setting out one on each end of the rail to cut them in with a coarse fretsaw or a fine-tooth tenon saw. The tapered top of the rail can also be marked in and cut and the surfaces cleaned up ready to have the ends fitted and glued on. The ends are 8ins. long by 6ins. wide, and the slight recess along the bottom of each can be drawn in from the measurements given in Fig. 4, which shows one of the plain cover panels which are glued on each end to cover up and hide the

Cutting List

OAK RACK A

- 1 piece 26ins. long, 9ins. wide, $\frac{1}{2}$ in. thick.
- 1 piece 17ins. long, 6ins. wide, $\frac{1}{2}$ in. thick.
- 1 piece 17ins. long 6ins. wide, $\frac{1}{2}$ in. thick.

RACK B.

- 1 piece 28ins. long, 8ins. wide, $\frac{1}{2}$ in. thick.
- 1 piece 18ins. long, 6ins. wide, $\frac{1}{2}$ in. thick.
- $\frac{1}{2}$ in. half-round Heading, No. 54,
- 1 piece 2ft. long.
- 1 piece 1ft. long.

Hat and coat hangers are 2d. each.
Parcel T.M. 283 for A is 4/- and B is 3/8 from Hobbies Ltd. Postage is 6d. on either.

tenons.

The ends when cut and cleaned are laid beneath the tenon portions of the long central rail and pencil lines drawn round. This ensures an accurate fit when the dovetail piece has been cut out with the fretsaw.

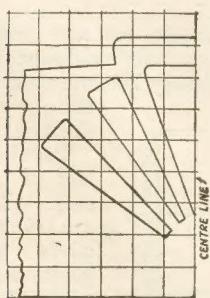


Fig. 2 — Squares for drawing the fan apertures.

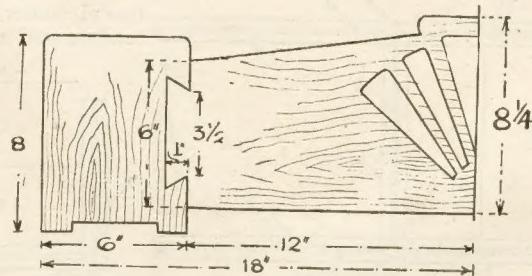


Fig. 3—General details of the back showing the joint.

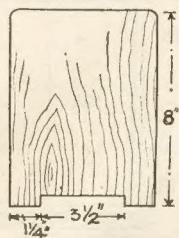


Fig. 4—The shape of one end piece.

Hat and Coat Rack—(continued)

The assembling of the three $\frac{1}{2}$ in. pieces should be done on a perfectly flat bench or table so that the tenons can be properly fitted and hammered into place after the glue has been applied to the several edges. Take care not to have too tight a fit or the end rails will split across the grain either above or below the joint.

Referring again to the end cover panels, these are cut to the exact outline of the end rails excepting, of course, that the dovetail recesses are omitted.

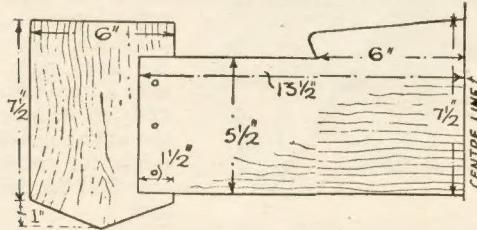


Fig. 5—Shape and detail of half a rack.

They should be of $\frac{1}{2}$ in. wood, and after cleaning up should be coated with glue and put under pressure for a time until the glue has thoroughly hardened.

The four hat and coat hooks are evenly spaced out and put on with round head screws.

The Second Style

Dealing with the second rack shown in the lower sketch at Fig. 1, this is somewhat similar in shape and construction to our first one. Instead of the end upright rails, however, being dovetailed into the long rail, they are halved into it as shown at Figs 5 and 6.

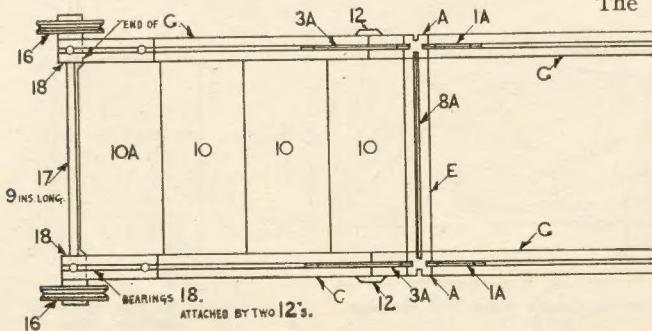
The long mid rail is 27ins. long by 8ins. wide, this width being reduced to $7\frac{1}{2}$ ins. when the shaping to the top has been set out. The shaped portion is quite simple to draw in, and its outline can quite well be got from Fig. 5.

Draw in the one half and then trace it on paper and reverse it and use the carbon paper just as before. This method ensures both sides being exactly alike. The rail is $5\frac{1}{2}$ ins. wide towards the ends, and from the extreme ends which must be cut off perfectly square, set in $1\frac{1}{2}$ ins. and draw lines across and cut down on these to half the thickness of the stuff.

Next draw lines across half the thickness on the

Edifix Models—(continued from page 520)

toy is, of course, that having made one model, it can be taken to pieces again when required, and



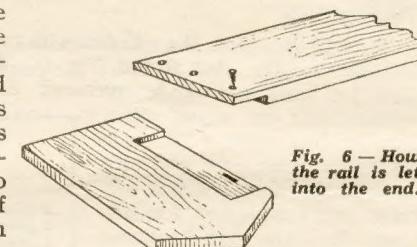
ends—that is, on the end grain, and again saw down with the tenon saw until the cross lines are met with.

The result should be two clean half-cut tenons through which three holes must be bored ready for securing the ends. These ends are prepared from two panels of $\frac{1}{2}$ in. wood, $8\frac{1}{2}$ ins. by 6ins., with the lower edges shaped off to a point as measurements show in Fig. 5.

After cleaning up the surfaces, lay the long mid rail in place on these pieces and mark round the tenon portion in pencil and down to half the thickness with a $\frac{1}{4}$ in. chisel. Clean out the recesses and make the faces smooth and even where the tenon will be glued.

The Hangers

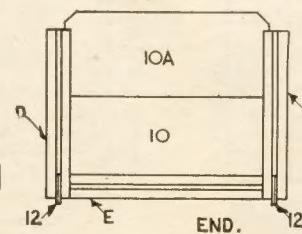
Carefully fit both ends before gluing up and see that the top front surfaces are flush. Glue and screw up the three pieces and finally put to the front in the places shown in the sketch some $\frac{1}{2}$ in. half-round beading (No. 54) from Hobbies. Glue this down firmly and add one or two fret pins if necessary. The five hat and coat hooks are spaced out as the sketch shows and put on with round-headed screws.



*Fig. 6 — How
the rail is let
into the end.*

the same parts used in the construction of other and more elaborate models.

The work is very fascinating for any young model maker, and we have no doubt that readers will immediately become enthusiastic over the new toy.



astic over
the new toy.
Particulars of the
sets which
are obtain-
able are
given in an
advertis-
ement on an-
other page.

FITTING A DRAWER TO A SERVICE WAGON

WE have received several requests from readers asking for instructions for fitting a cutlery drawer to their service Wagon made from Hobbies design No. 179 Special. This short article should not only prove helpful to those who have already made up this very useful piece of furniture, but should assist those who are looking for a design for a combined Wagon with Cutlery Drawers. The sketch shows the article with drawers fixed below the lower shelf because the space between the two shelves hardly permits them being below the upper one.

Two Drawers

It is a simple matter to fix two drawers of equal length and size, and the only parts necessary to hold them are two long rails, a cross centre rail and four runners.

The wood required for these parts will be the same as the rest of the wagon. Get out two rails each 22ins. long by $3\frac{1}{2}$ ins. wide and $\frac{3}{8}$ in. thick and

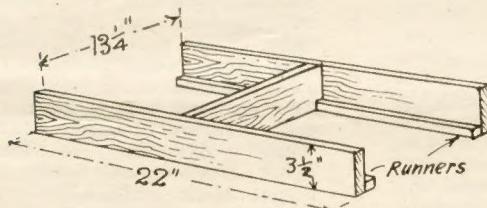


Fig. 1—The skeleton of the runners and side rails.

mark the centres where the cross rail will be fixed. This is $13\frac{1}{4}$ ins. long and cut with square ends and screwed to the long rails with countersunk brass screws.

To the lower edges of the long rails screw on four runners for the drawers. They consist of $\frac{1}{2}$ -in. square stripwood and the screws should again be countersunk and run the full depth into the $\frac{3}{8}$ in. rails. Cut the runners flush at the ends and make the ends of the rails neat.

The whole piece ready for just fixing to the Wagon is shown at Fig. 1. In Fig. 2 is shown how it is fixed by means of screws to the plywood floor, the screws coming just inside the side rails.

It will be noted from Fig. 2 that the drawer rails fit exactly between the legs, the inner surfaces of them coming flush with the latter. In the angles

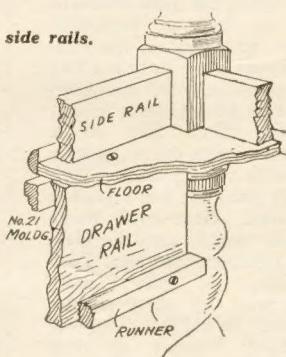
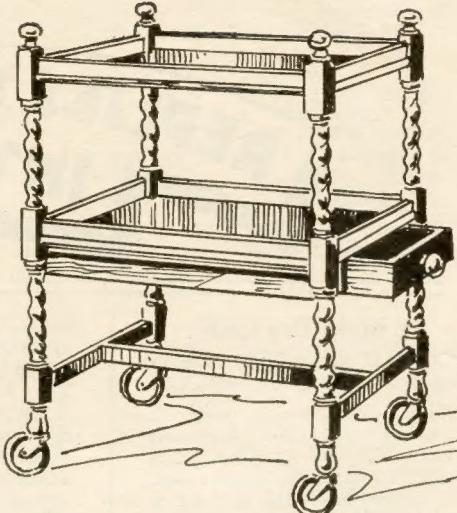


Fig. 2—Details of the fixing.



formed between the outsides of the drawer rails and the floor, a neat finish can be made by gluing in pieces of No. 21 moulding as the section (Fig. 2) shows.

Construction

The two drawers are of the usual simple construction, Fig. 3 being a view taken from the rear end of one of them. Careful measurements should be taken direct from the rails such as width between rails and depth from front of rails to the centre cross rail.

Make the sides, the back and the inner front of the drawers from $\frac{3}{8}$ in. pitch pine, and after framing up these pieces and nailing securely, nail in the floor of $3/16$ in. plywood. Keep the back of the drawers in a little way from the back edges of the sides so the nails forming the fixing do not pull out after constant use.

The front to the drawers should consist

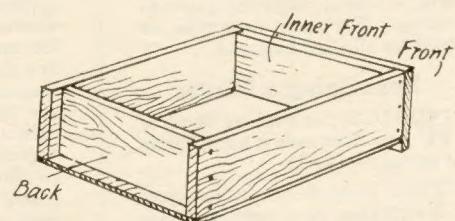


Fig. 3—The drawer made up.

of $\frac{3}{8}$ in. wood, glued and screwed on. The lengths of these fronts equal the widths between the legs, and the depths $\frac{1}{2}$ in. more than the depth of the drawers. This is in order to hide the ends of the runners.

Of course the exterior finish to the rails and drawers should be made to match as nearly as possible the actual work to which they are fitted.

Patterns for a Model Electric Crane will be given on next week's Free Design Chart.



To Make Dry Cells

COULD you tell me how to make dry batteries?—(F.A.I.)

THE container is made of suitable sheet zinc. A wooden plunger, for a bell type dry cell, is made $\frac{3}{8}$ in. larger in diameter than the carbon, insert this in the case and hold $\frac{3}{8}$ in. above the bottom, the surrounding space is then filled with the following that is mixed with water until the consistency of cream, pour in quickly and pack down as it sets fairly rapidly. The measurements are for volume:

Sal Ammoniac	...	...	1
Zinc Chloride	...	...	1
Flour	...	...	$\frac{1}{2}$
Plaster of Paris	...	...	3

Remove the plunger when the above has set, insert the carbon and pack round with the following as above:

Sal Ammoniac	...	...	1
Zinc Chloride	...	...	1
Manganese Dioxide	...	1	
Granulated or powdered carbon rods as fine as possible	$\frac{1}{2}$		

Plaster of Paris ... 3

The carbon can be bought or the centre rod of an old dry cell used. Fit a terminal to the carbon and zinc, seal the top off with a sealing compound or pitch and when dry drill a hole through for gases to escape. The same materials are used for all sized batteries.

Renovating a Mirror

WOULD you send me details of how to remove a scratch from a mirror?—(A.C.)

THE method of dealing with scratches on a mirror depends upon the position of the scratches. If the back of the mirror is damaged, it means that the silvered surface has been scratched off, and this will necessitate resilvering if the scratches are of considerable area. Alternatively, the mirror could be resilvered on the scratched parts by first removing the mirror, carefully cleaning the glass where bare, and then some plasticine or modelling clay should be built around the damaged places to form shallow walls. Into these,

apply a silvering solution composed of 90 grs. of nitrate of silver dissolved in 4 ozs. of distilled water. Take 2 ozs. of this solution and to it add ammonia drop by drop until the precipitate first formed is dissolved, then add 4 ozs. of a solution composed of 90 grs. pure caustic potash and 25 ozs. of distilled water. Again add drops of ammonia until the solution just becomes clear, then add 9 ozs. of distilled water. Add very slowly, sufficient of the remainder of the first solution to form a grey precipitate. Then add a final solution composed of $\frac{1}{2}$ oz. of milk sugar in powder form, dissolved in $2\frac{1}{2}$ ozs. of distilled water. Pour the resulting solution into each prepared place, and leave for several hours in a warm dry place free from dust. Pour off the liquid and repeat the dose several times. This causes silver to be deposited on the glass, and when washed with distilled water and carefully dried, the back should be painted to form a protective covering. Scratches on the glass side can be removed but it is a long tedious operation which can, however, be done from time to time as opportunity offers. First attack the scratches with crocus powder applied with a damp cloth. Rub vigorously until the fine scratches are removed. Next apply rouge in a similar manner until the glass is almost free from markings. Then use whiting and water, finally polishing with dry putty powder applied with an old but clean soft handkerchief. Beware of dust particles in the air or on the rubbers, as if of a gritty nature, they will re-scratch the surface.

Making Cloth Water and Airtight

PLEASE tell me a method of making cloth both waterproof and airtight, so it can withstand considerable pressure and yet not make it stiff or liable to crack easily?—(L.C.)

BOIL half an ounce of Russian Bisonglass in a pint of soft water till dissolved; dissolve an ounce of

alum in a quart of water; dissolve a quarter of an ounce of white soap in a pint of water, strain these solutions separately through linen, then mix them all together. Heat the liquid until it simmers, and apply it with a brush to the wrong side of the cloth on a flat table.

When dry, brush the cloth lightly with water.

About a T.B.D.

IHAVE a torpedo boat 30ins. long with usual fittings on deck, not much room for an engine and boiler. Would your motor advertised at 2/6 drive it? How small an accumulator could I get to go inside, or how many pocket flash lamp batteries would be required? I also had a desire to drive it from "hot air," but what copper tube would be required as regards bore? Would $3/16$ ins. diam. be about right? How many coils would you advise? Having made a boiler 7ins. long by 10ins. diam. a small engine $\frac{1}{2}$ bore $\frac{1}{8}$ ins. stroke. Would this not do, being spirit fired? There's not much room certainly, and I have no tank or bath to test it. How big a boat and what kind would you advise me to make to run on "hot air" or jet propulsion?—(A.W.R.)

THE most convenient and suitable form of propulsion for a 30in. T.B.D. would be a small electric motor (Hobbies 2/6) driven by a pocket flash lamp battery of the $4\frac{1}{2}$ volt. flat type. This should run the boat at a good speed for half an hour or more. The "hot air" or jet type of propulsion is only suitable for small boats—say, 15ins. long. The tube should be very thin, and about $\frac{1}{8}$ in. diam. in the bore; it should be flattened somewhat after coiling. The coil should be about 1in. diam. and be located in the flame from a small methylated spirit lamp. We do not recommend steam for a small model of T.B.D. class. The reserve of buoyancy is generally too small and the displacement inadequate for the weight.

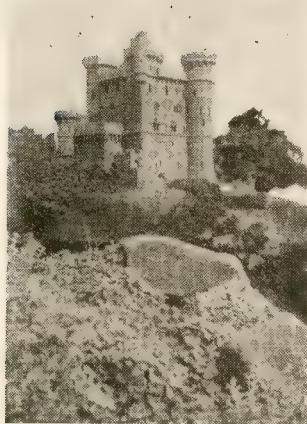


Fig. 1—Amid natural scenery.

in, so far as the modelling of buildings is concerned, is ordinary pressed cork such as is used for bath and table mats. It cuts easily; can be bent into almost any required shape; and fine detail work can be executed in it by the aid of small files.

The photographs illustrating this article are of a model Castle, built up practically stone by stone made of table mats and bath mats, to a scale of one eighth of an inch to one foot. The tools employed were a fretsaw, a sharp penknife with a stencil-cutting blade, a number of used safety-razor blades for specially fine cutting, one $\frac{1}{16}$ in. flat file, one $\frac{1}{8}$ in. flat file, one $\frac{1}{4}$ in. round file, one $\frac{1}{16}$ in. round file, one $\frac{1}{8}$ in. half-round file and one $\frac{1}{16}$ in. triangular file. All the small files tapered off to a sharp point.

The Floors

The floors are made of 3-ply wood and the "rock" base is made of rough cork such as is used for covering window boxes. The doors and the drawbridge are made of thin oak, whilst the portcullis is of lead. It was made by first cutting out a pattern in the thin oak and using that to make a plaster-of-paris mould into which the molten lead was poured and allowed to set hard. The plaster mould was then broken away, and the lead casting was finished off neatly with the small, triangular file.

The Portcullis

This portcullis is hung on chains, and is wound up and down in its grooves by means of a model

A MODEL CASTLE MADE FROM CORK

Here is a novel suggestion as carried out by a reader and fully explained. Just the class of work to win prizes at any Arts and Crafts Exhibition.

THE making of models has always held a great fascination even from the very earliest recorded times. One of the easiest

mediums to work winch of the type used in the making of model ships.

All the doors are properly and realistically studded with "nail-heads" made from the heads of very small pins of the kind you find stuck in all over a new shirt to hold it in its "display" folds; whilst the hinges are made from other pins, suitably bent to shape.

When this particular model was commenced, the general idea was to construct a model of Rochester Castle Keep—a Norman stronghold in Kent. The ground-plan, the fore-building over the main gate, and the general dimensions are, therefore, those of Rochester Castle; but the plain form of the Early-Norman battlements and windows gave little scope for the model-maker's increasing desire for more elaborate and intricate work. It was then, accordingly, decided that the model should embody as many as possible of the normal features of Castles in England and become a sort of object lesson in castle-building generally.

The Various Forms

From ground-level to the first plinth is early-Norman work; from first plinth to main roof-level is Angevin, and from main roof-level to the tops of the corner towers is Edwardian. This covers the three great eras of castle-building in England.

Everything in the model Castle "Caermorfa" (The Castle of the Marshes) is to scale, and the building is complete with great hall; storechambers; muniment room; kitchens and buttery-hatch; guard rooms; dungeons and torture-chamber; cubllette; gardes-robe; solar; bedchambers and bower for the ladies of the castle; my lord's bed-chamber with raised dais and alcove for the bed;

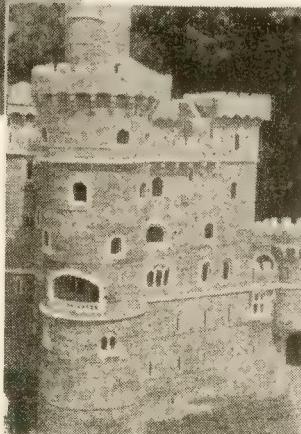


Fig. 3—A close-up of the south-west corner.

shrine in wall and sun-balcony outside; chapel, complete with altar, cross, candles and altar-rails; priest's room; ladies' gallery; musicians' gallery and hall of pleas. The north-west tower contains a spiral staircase throughout its entire height.

Castles made from Cork—(continued)

A well-shaft, with openings at every floor level, runs down through the Castle, from the well-head on the roof, to the well, deep down in the rock upon which the castle is built.

A secret passage, complete with secret sliding panels as entrances, connects the torture chamber with the muniment room at the opposite corner of the castle.

Made in Parts

Floor by floor, including the towers, the castle can be taken to pieces with perfect ease, thus affording access to all rooms and passages.

Materials, in the form of 3-ply wood; cork; "Croidal" fish-glue (used for gluing the pieces together) and the winch for the portcullis, cost £5 12s. 6d. Used gramophone-needles were utilized as dowels to clinch the parts securely together wherever necessary.

The main walls are, to scale, 15ft. thick at ground level, tapering off to 9ft. thick at roof-level, and the actual dimensions of the model are 18½ins. by 16ins. by 24ins. high to the top of the flagstaff on the highest watchtower, which is 23ins. high. As there is practically nothing but cork in the model, apart from the 3-ply floors and the small piece of perforated lead forming the portcullis, some idea of the massive strength of the structure can be gained from the knowledge that the complete model weighs 13 lbs. 2 ozs.

To illustrate the comparative size of a six foot man, to scale, a gibbet was erected on "the topmost tower of the donjon-keep" and hanging therefrom, with his hands tied behind him, is a ¼in. figure of "a black-avised villein dight in black hosen and scarlet jerkin."

Natural Scenery

Illustration No. 1 shows the model standing on a "rockery" and, being built to scale therefore, in perfect proportions, gives an excellent impression of a real castle viewed from the near side of an intervening ravine. In actual fact no "ravine" exists. The trees at the back of the picture are real trees, some 30 to 40ft. high, but their distance, and the position in which the camera was held, reduces them to reasonable proportions.

Figs. Nos. 2 and 3 show close-up views of the north-east and south-west corners of the castle, respectively. In Fig. No. 2 the Norman "dog-tooth" carving on the barbican gate; the early-English and perpendicular windows of the great hall; and the portcullis and drawbridge can be seen in detail. Illustration No. 3 shows clearly the balcony outside my lord's bedchamber, with below, the early-Norman, two-light windows to the solar;

the chapel window (in the corner by the main turret on right); the gargoyle through which the roof of the great hall is drained, and the outside staircase to the roof of the south-west tower.

Illustration No. 4 is a view from the air, and shows the well-head in the centre of the castle and the roof of the great hall; whilst Figs. Nos. 5 and 6 are general views of the model standing on an ordinary card-table.

Draw Plans First

A certain amount—but not too much—of manual dexterity is required for the successful manipulation of the very small blocks of cork used in construction when the model is to such a minute scale as in this instance; but, at a scale of, say ¼in. or ½in. to the foot, and with a more simple design of edifice than the one chosen here, any boy of normal intelligence could make a very creditable working model.

The free libraries contain so many useful and authoritative books, giving the necessary architectural details required, that any specialized knowledge of construction and design can be acquired easily and pleasantly at little cost in either money or energy.

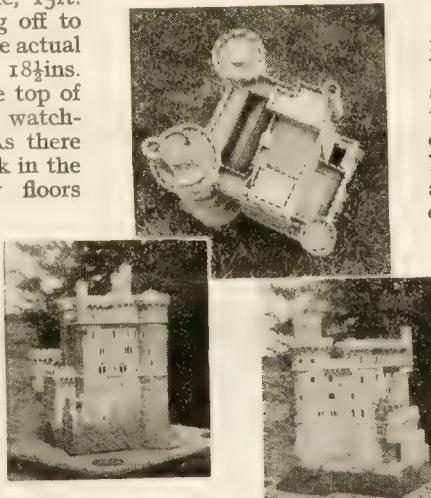
Before commencing a model of this nature, however, it is as well to draw complete plans and elevations, to scale, as a guide to ensure a properly proportionate appearance in the finished article. For "Caermorfa" complete building plans were prepared, although the elevations were afterwards altered from time to time, as the work of erection progressed and more intimate knowledge of the times was absorbed.

Useful Information

For reliable information on the Castles of England the following books are recommended as being written in a clear and concise manner with first-class indices for rapid reference to desired points:—"The English Castles" by E. B. D'Auvergne. T. Werner Lawrie, Ltd.; "Castles" by Charles Oman, K.B.E., M.A., etc. Great Western Railway; "Bodiam Castle" by the late Marquis Curzon of Kedleston, K.G. Jonathan Cape.

The Castles of Scotland are all of a very different type from those of England and many of them would lend themselves to modelling with admirable effect. The best book dealing with the subject is undoubtedly "The Mediæval Castle in Scotland" by W. Mackay Mackenzie. Methuen and Co., Ltd.

If you would like to have one of the novel Castles the author of the article is offering one for sale. Details will be found in our Miscellaneous Advertisements on another page.



Figs. 4, 5 and 6—Views of the model.

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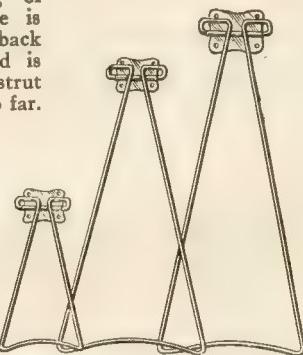
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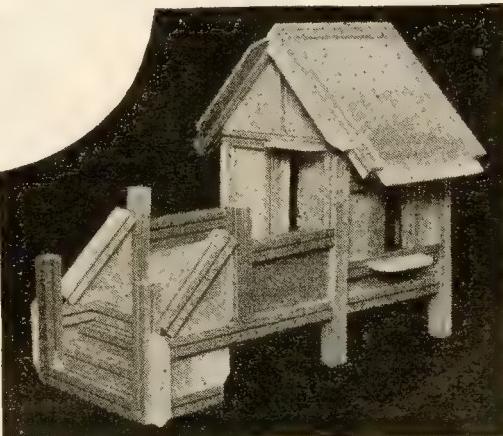
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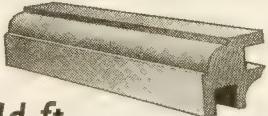
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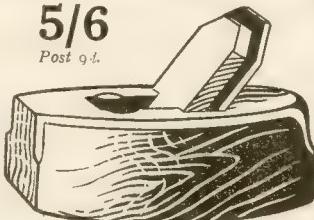
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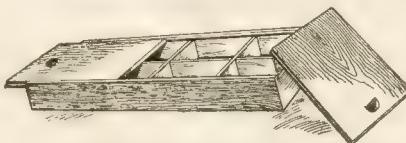


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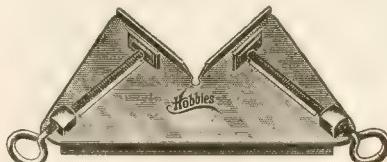
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We also supply a similar cramp to the No. 2, but with a metal saw guide for mitre cutting. Price 10/6, postage 1/-

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This is the All-steel Corner Cramp. Takes moulding up to 2½ins. wide and is nicely finished off. For small mouldings and beadings it is a real serviceable tool. At the low price of half-a-crown it should be on every work bench.

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A MINIATURE GRANDFATHER CLOCK

HERE is a fascinating job for you to do! The clock illustrated stands 10ins. high and is just right for the mantelpiece or the dressing table. Ebony dressing table clocks are extremely expensive to buy and this one, if made in satin walnut or some other close grained wood, can be ebonised quite effectively so an expert will be needed to tell the difference. Or it can be stained to a natural colour in the usual way with one of Hobbies inlay transfers imposed on the centre panel to complete the appearance. The work to be done is very simple and a beginner can tackle it without fear and with only a few tools.

Making the Clock Case

The top section of the view of the parts in Fig. 2 is made out of a small block of satin walnut 3ins. by 3ins. by 1½ins. The hole in the centre to receive the clock is 2½ins. full in diameter—clock No. 5506 as sold by Hobbies Ltd. will just fit into it.

Mark out the hole carefully in the centre of the wood and using the same centre, mark out the larger curve for the top; you can easily ascertain the size of this by referring to Fig. 2.

If you have not a large enough, or expanding bit, to bore the hole with, do it like this. Fix the block of wood on the bench firmly and with a small

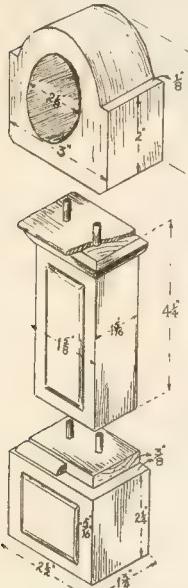


Fig. 2
Details of construction.

twist bit, say about a ¼-in. one, bore a series of holes round the circumference of the circle which is to be the hole as shown in Fig. 3.

The waste wood will fall away when the last hole is bored and all you have to do then is to clean the remaining pieces of waste away with a chisel or gouge, and finish with a file.

The top curve can be done by cutting out the square portions first with a tenon saw and rounding the top by laying the

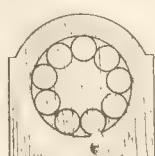


Fig. 3—How the face is bored out.

CUTTING LIST

- 1 piece satin walnut, 3ins. by 3ins. by 1½ins. Clock case.
- 1 piece satin walnut, 4½ins. by 1½ins. by 1½ins. Central column.
- 1 piece satin walnut, 2½ins. by 2½ins. by 1½ins. Base.
- 1 panel Fretwood, 3½ins. by 1in. by ½-in. For middle.
- 1 panel Fretwood, 1½ins. by 1½ins. by ½-in. For base.
- 1 piece satin walnut, 1½ins. by 1½ins. by ½-in. For base.
- 15ins. of ½-in. quarter round moulding (No. 34).
- 1 piece fretwood, 2½ins. by 1½ins. by ½-in. For central column.
- 6ins. of ¼-in. dowelling.
- 1 clock, No. 5506.

and glasspaper. The two bevels on the underside, which measure ¼-in. by ¼-in., can then be planed off.

The Central Column

For the central column obtain a piece of wood 4½ins. by 1½ins. by 1½ins. Then get a piece of quarter round moulding (No. 34) ½-in. wide and fit it round the front and sides of the block by mitring it at the corners (as shown in Fig. 2). This can be glued and nailed into position.

For the front panel obtain a piece of ½-in. fretwood 3½ins. by 1in. and then with glasspaper rub off the front edges to make them round. The panel can then be glued on the face of the column so that a margin ⅛-in. wide shows all round.

Next cut a piece of ½-in. fretwood to glue on the top of the column 2½ins. by 1½ins. and round the front and side edges of this semicircularly. Glue this on so that it overhangs the front and sides ½-in. and keep it level with the back.

The main block of the base is 2½ins. by 2½ins. by 1½ins. in size, the first measurement being in the direction of the grain. Make a front panel for this one out of ½-in. fretwood 1½ins. by 1½ins. and round the front edges as before on the other panel. Glue it into position leaving a similar margin all round.

Next obtain a piece of ½-in. wood 1½ins. square to glue on the top of the base block so it fits flush with the back leaving an equal margin at front and sides. Then obtain some more quarter round beading, mitre and glue it into the recess as shown in Fig. 2.

Assembling the Parts

The three sections can now be prepared for assembling. To do this obtain some short pieces of ½-in. dowelling and cut four pieces each 1½ins. long. Then very carefully mark out two dowel holes on each part, namely, the top of the base, the top and bottom of the central column and the bottom of the clock case.

Great care must be taken to mark the holes out so each corresponds and the backs of each section will be in a straight line when fixed together. When the holes are bored, the dowels

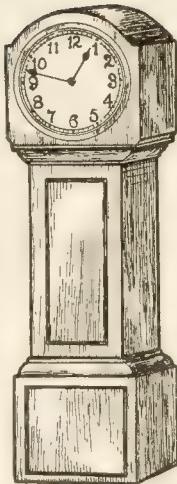


Fig. 1

Grandfather Clock—(continued)

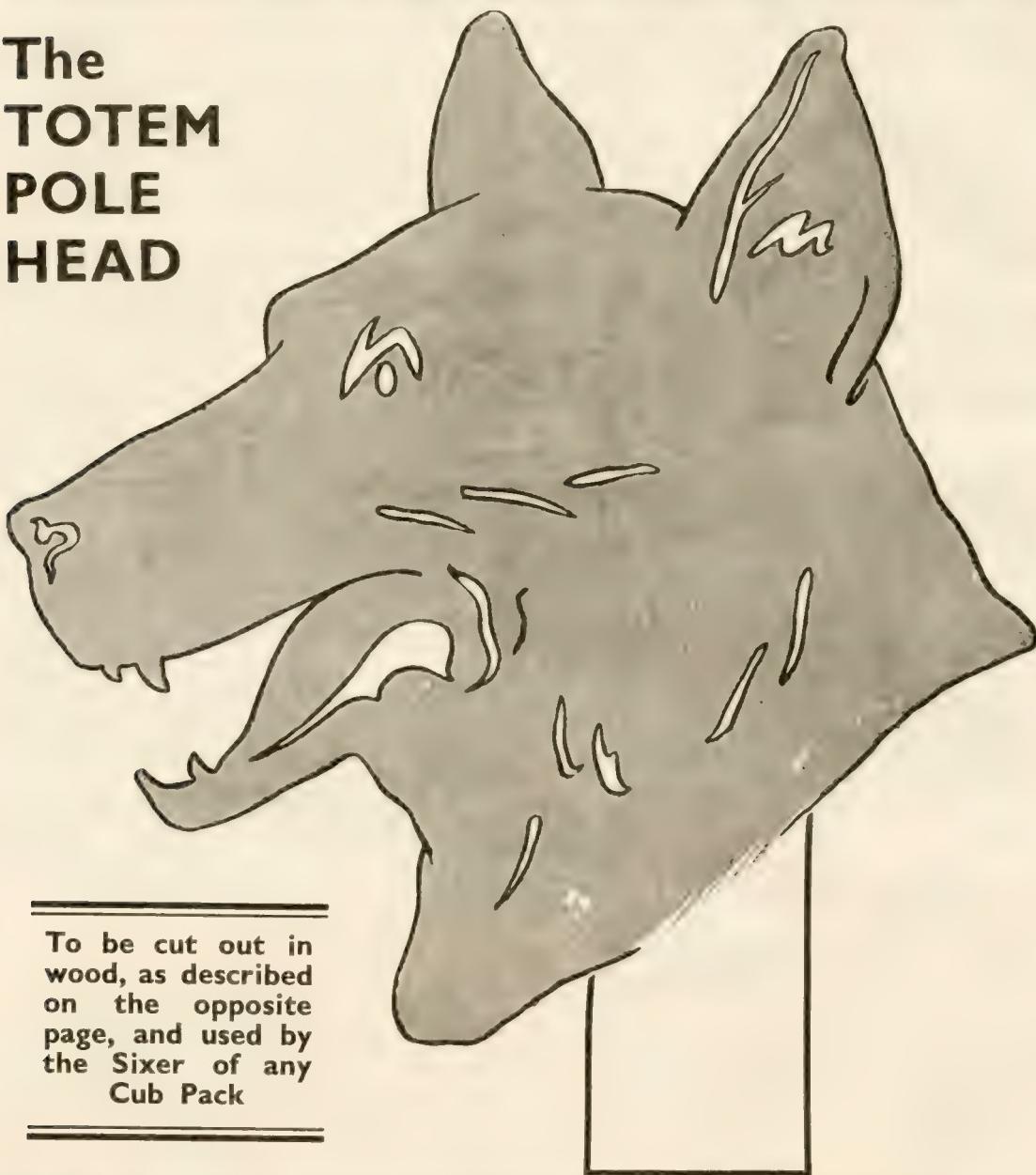
can be glued in and the parts glued together.

It is a good plan to cut a round piece of plywood to make a door at the back of the clock. This can be cut a little larger than the hole, hinged on the back with a small hinge and fastened with one of Hobbies box catches No. 5475.

The complete job can then be stained and polished as required and if you decide to use a transfer, No. 5349 is a very suitable one.

Hobbies Ltd., will supply you with a parcel of wood and a clock No. 5506 at a very cheap rate to do the complete job.

The TOTEM POLE HEAD



**To be cut out in
wood, as described
on the opposite
page, and used by
the Sixer of any
Cub Pack**

A CUB TOTEM POLE

THOSE who have anything to do with the Scout Movement know the value which the Cub Pack attaches to its Totem Pole, and some very fine specimens are to be seen about. Most Packs, of course, have their own elaborate Totem Pole, but here is a suggestion which will appeal to both the Cubs themselves and the Cubbers.

As well as the Totem Pole for the Pack, why not have one for each individual Six? This can be representative of the typical Head, and easily cut out from wood, and fixed on to a short pole about 3ft. 6ins. high. Any Sixer can make one for his own Six, and paint it in the proper colour—brown, black, red or whatever it may be.

A Full size Drawing

This indeed, we know, will be popular with those of our readers interested, particularly as we give on the opposite page a full size drawing suitable for any Sixer to make.

The pattern given, can be cut out and pasted down to wood $\frac{1}{4}$ in. or $\frac{1}{2}$ in. thick. If you cannot cut out $\frac{1}{2}$ in. wood with the fretsaw yourself, you can easily cut two patterns of the same in $\frac{1}{4}$ in. material. If you want another copy of the head, you can trace it off through greaseproof paper, or of course, buy another copy of Hobbies Weekly.

The Feature Lines

The outline is cut carefully with a fretsaw going round the bottom where the projecting square piece is given as well. The entire features can also be cut through, or if you prefer those little lines—for the eyes, nostrils, wrinkles, etc., can be painted on afterwards.

Some of you are probably handy with the small carving tool, and may like to get these features out with a veiner. In any case, the $\frac{1}{4}$ in. thickness of wood lends itself to be shaped and rounded to make the finished head more realistic.

Shaping and Colouring

The rough edges should be lightly glasspapered off and the complete features of teeth, ears, etc., painted in. The drawing herewith shows what the finished head can be made to look like by the clever worker. The use of coloured paint—you can get 2d. tins in any colour from Hobbies Ltd., will make a big

difference, and if a Sixer cannot perform the work, there is, no doubt, somebody in the Pack, or even the Cubber can.

Fixing the Head

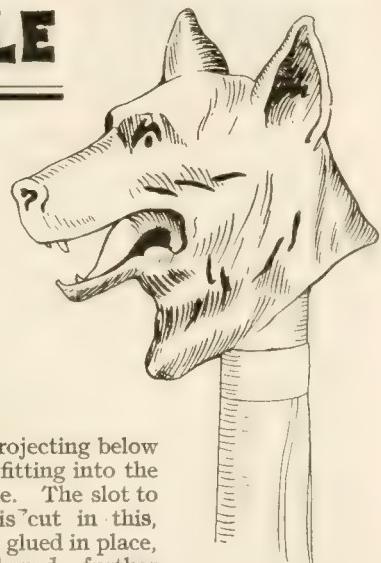
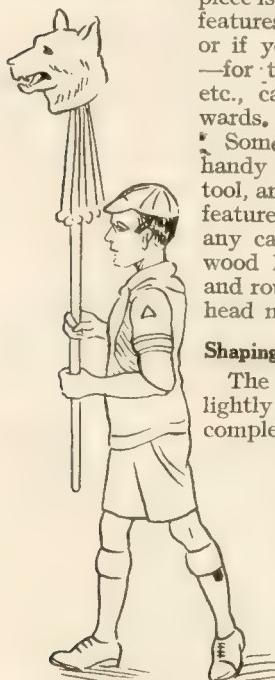
The piece projecting below the neck is for fitting into the top of the pole. The slot to accommodate is cut in this, and the head is glued in place, being strengthened further with a screw driven right through. If the projecting piece shown is too wide for the pole it can be tapered off or cut narrower to make a neat fit.

Then there you are—a splendid little piece of work to undertake for your Six, an original imitation of the Pack Totem Pole which is worth undertaking in your spare time.

Headquarter's Permission

We have, by the way, received the permission of the Headquarter's Commissioner for Wolf Cubs to show this design as a suitable one for the Sixer to make and carry, so you are not likely to get into trouble on that score.

Another method of making up the head is to carve it out. For this, cut out the shape of the pattern in wood and then add layers of plastic wood to get the shape and extra thickness. This plasticwood can be kneaded roughly into shape and when hardshaped with carving knives or penknives.



To Readers of
Hobbies Weekly only

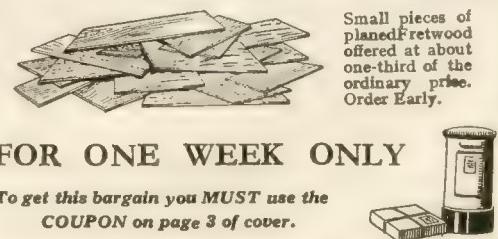
SPECIAL BARGAIN OFFER!

Get this Big Bundle of FRETWOOD for 2/3 Post Paid

Small pieces of planed Fretwood offered at about one-third of the ordinary price. Order Early.

FOR ONE WEEK ONLY

To get this bargain you MUST use the COUPON on page 3 of cover.



MODEL MAKING WITH EDIFIX

THOSE who are fond of model making in wood, will be delighted at a new opportunity which is afforded them of a constructional toy called Edifix, whereby actual simple models can be built as toys to play with or to use. The wood itself is principally in a square section, grooved on all four sides, and these are used as pillars or struts. Into the grooves fit the panels, and these in turn are standardised sizes with which one can make a very large number of simple and even elaborate models.

Some idea of the possibilities is given by the pictures herewith, and the only other parts required are triangles which are used for the ends of roofs, etc., and corner stays which are tiny pieces helping to hold the struts together.

Standard Parts

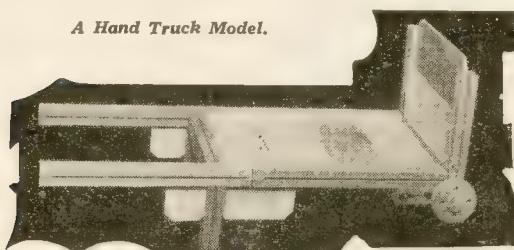
The models are progressive, and a start can be made on quite simple toys and articles. Then, as one becomes more accustomed to the fitting, the worker can pass on to larger models. The standardised parts provide for a good deal of ingenuity by the worker himself, and many readers will be able to construct for themselves new and original models worked out with a little care.

The standardised parts are all strongly made, and the construction is perfectly straightforward. They follow the lines of the grooved corner moulding so often used in ordinary work by the reader.

No Tools Needed

One advantage is that there are no actual tools required because once one has the set of parts, the various models can be built. Such small articles as a see-saw, a wheelbarrow, a telephone box or a platform truck, would form the first work of the owner of this constructional toy, whilst when he gets more conversant with the making, he can do such elaborate models as a sun bungalow, a swing bridge, a doll's house, a garage, a signal cabin, and a whole host of others.

A Hand Truck Model.



The ability with which he can do them is largely aided by various drawings which are supplied in connection with each model. For instance, the picture here which is of a hand truck, and the drawings in the handbook show how parts are put together. A plan is provided of the frame, and of

the end, and reference to the various numbers makes the whole thing quite straightforward.

These numbers are the reference details given with each set of Edifix, and provide the key from which the parts are easily

A Working Elevator.

built up. The more parts or sets you have, of course, the bigger and better models you are able to build, therefore, it is a simple matter to add further parts from further sets and gradually evolve and construct the large models provided.

Key Numbers

The struts are lettered off from A to G, the panels go from No. 1 to No. 10, whilst the various triangles, chimneys, doors, windows, etc., go from No. 11 to No. 22. By glancing at the schedule of contents, which are set out very clearly with the toy, one can get out each of the parts required, and lay them aside ready to commence work. From this the construction is straightforward.

For instance, take the end of the hand truck as shown in the drawing. Here is a long strut E, and two shorter ones D., and then—referring to the drawing of the frame—to this is added the long struts forming the sides (G) and (A).

Into this framework, various of the No. 10 panels are slipped in, the grooves making it quite easy to pass the wood along until it comes to a stop at the end.

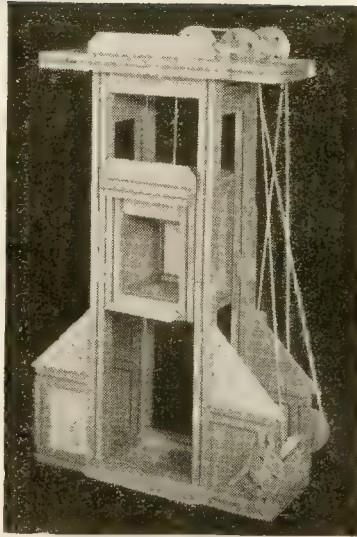
The Frame and Floor

There is a cross strut (E) along the framework of the truck. Into these grooves the various panels fit. It will be noted that No. 10a is a piece with cut corners, and this, when slipped into the top piece of the end above another No. 10, makes the complete frame rigid.

The floor of the truck is composed of three pieces of No. 10 and one 10a, the last mentioned goes in first and runs right to the end to provide a stop for No. 17 axle. This axle fits into the bearing at the end of the framework, and on the outer side come the two wheels No. 16.

Thus we have quite easily and quickly constructed the hand truck illustrated herewith, and the enthusiastic beginner will immediately want to go on with some further model. The beauty of the

(Continued on page 510)





Boxes in trees as homes for Barn Owls.

HAVE you ever spent a day with a keeper at one of the big zoos and seen all the interesting doings in his day with the animals? Few boys have enjoyed this thrill, though the zoo is still one of the greatest attractions on a

holiday. But any boy with sufficient space in the garden at home can make a little zoo for himself and enjoy all the pleasures of the keeper of a big zoo, without the majority of the risks.

Your garden or what you intend to allocate for the zoo must first be parcelled out, and having a list of the animals you propose to keep, you first see they all get sufficient room to be happy and where possible, have an enclosure or small grass run, surrounded with a wooden framework covered with mesh wire.

All buildings or hutches may be made of wood but must be watertight, well ventilated but free of draughts, stood on trestles or bricks to keep them free of ground-damp, and kept scrupulously clean with fresh bedding and cleansing from time to time. Likewise, all food-pans must be kept clean by frequent scouring with boiling water.

Some Pets

Your list of pets may be very extensive according to the space you have, but you should choose more interesting subjects than the old fashioned pet rabbits. You may have a pen for tortoises, another for guinea-pigs, a glasshouse for the harmless grass-snakes and blind worms, another "den" for the hedgehogs, a third for a baby badger, another for a North American racoon family, animals which are very easy to keep and can be purchased fairly cheaply from any of the big animal dealers. Of course, you can always obtain monkeys cheap enough if you like them.

How to Get them

You might be asking how to get all these things. Well if you know a gamekeeper, or a farmer, you can soon save many a baby of the wild from an unhappy end by offering to provide it a home. Many animals are destructive where gamebirds or crops are reared and unless the gamekeeper destroys when he finds them, he is dismissed from his post.

Why not run A PRIVATE ZOO?

Often on your rambles you may find a family of young hedgehogs behind their mother, or the keeper will tell you where there is one, and under natural conditions probably but one of those four babes would survive the year. They are easy to carry and snuggle up into the corner of your arm, but do not take them too early or they will pine for their mothers, though after a time mother chases them away and they must feed for themselves or get shot by the keeper for taking his eggs!

Give your hedgehog a warm bed of clean straw in a waterproof hutch (an old dog-kennel makes an excellent house with a door attached). Feed him on slugs and snails, warm milk, the ordinary insect-meal you buy for poultry, sopped bread in his milk, an occasional taste of shredded or finely-chopped meat, and any frogs you do not want.

In winter he will want plenty of old leaves to make a big bed in the corner of his hutch, and you must throw a few mats over the hutch to keep it warm, for he will sleep soundly and only awake when the weather turns mild.

Your tortoises will also sleep the winter, but if you let the frost get at them, they will die. Tortoises by the way want plenty of greens and all your pets — hedgehogs, rabbits, snakes, etc., want drinking

water, for though some animals only occasionally drink, it is cruel to deprive them of water.

The enclosure for your hedgehog must not be protected with wire for this little animal will climb up this and drop, in a ball, over the other side: give it smooth boards or a stone wall, just as you must do with the racoons.

These are pretty little creatures with black and white banded tails, that carry their babes on their backs and are as full of curiosity as the monkey, and take very well to life in the open in this country if provided with a good enclosure—say 10ft. square or a circular one of 20ft. diameter—with a smooth-



Squirrels are suitable for your Zoo.



The native "Bear" of New South Wales is an excellent pet for Australian readers.

A Private Zoo—(continued)

walled surrounding of 5ft. height and a low "den" for shelter in the centre.

Racoons

Racoons are very intelligent and playful animals quite easily tamed, using their fore-paws like hands, boxing the ears of their erring youngsters, and making many human-like grimaces as do the monkeys. As a rule, a racoon likes to wash its food before eating, and should be given nuts, fruit, corn, chopped meat and occasional fish and frogs. If you have a small dead tree or shrub, place it in the middle of the racoons den, so they can indulge in their favourite sport of climbing.

Uncomplaining pets will be the badgers. Most badgers' setts when found are destroyed by keepers, but if you can secure a baby badger you will have one of the most charming pets imaginable. These little black and white and silver-grey "bears" (the nearest relatives to the bears that live in Britain) may need feeding with a baby's milk bottle if very young, but when they grow up you can feed them on chopped meat—not too large at first in case it chokes them—bread and milk, and meat, with occasional chocolates and raisins.

A Badger

A badger will eat much less in winter than in summer, and should always have plenty of warm bedding frequently changed. Dried fern-fronds are favourite bedding for its sleeping quarters. If you give your badger two sleeping quarters it will probably amuse you by carrying its bedding from one to the other periodically. They soon become confiding, and like the hedgehogs can be let out to run round the garden or house—in fact in the kitchen the hedgehog is an excellent cockroach catcher—uttering a gurgling noise and raising the hairs of its back when excited.

If you have any grass-snakes, keep them apart from the hedgehogs, for the "urchins" as the latter are called are great killers of snakes. A small glass case as is frequently seen for a show-

case in a shop window, with a mesh-wire top, makes an excellent vivarium for the snakes and lizards and blind worms or slow-worms. Keep them warm, put a few rocks in for them to sit on and find shelter amongst, and a 3in. layer of sand; give them water every day, and feed the snakes on the mice you catch in your traps—dead, not alive—slugs, snails, bits of meat, etc., but do not be surprised if they refuse all food for a year, for they often fast for great periods.

A snake usually needs one good meal a month and a drink a day. Give it a hot water bottle in winter. You can keep some of the little green tree-frogs (they have sticky feet and crawl upside

down on the glass) in the case with the snake, and feed them on bluebottles. You can make a bluebottle trap by having a drum or ordinary large gauze meat-cover in the sunlight with a piece of meat or bacon inside to attract the

flies and a wide funnel-shaped entrance narrowing to a small space inside, so the flies enter easily but are in difficulty to find their way out again.

A Chameleon

If you have a chameleon it needs a little more shelter than the snakes and lizards, for it is rather shy, and a twig to climb along, but do not keep it with other reptiles. It probably will not drink from a water pot but will lick the water if sprayed on to the glass, but it does not need much. Tortoises by the way are of no use to rid your garden of slugs, for these reptiles eat green stuff. If you obtain a fox-cub, it will probably get difficult to manage when it grows up, while such creatures as

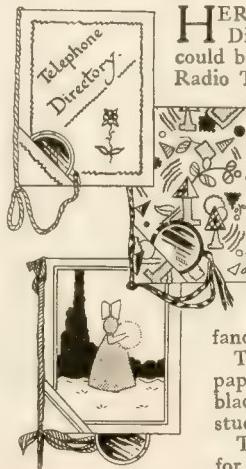
squirrels, wild rabbits and hares should never be kept in confinement for they are so active in the wild that they often suffer from cramp in a cage. And if you are worried over your pets, the man at the zoo will always tell you what to do.

There are numerous books on animal breeding, rearing and keeping which would be helpful. The names can be obtained from the Editor on request enclose 1½d. stamp



Two Old English varieties suitable for the Zoo.

Some Simple Covers



HERE are some ideas for Telephone Directory Covers—and the same ideas could be used equally well for blotters and Radio Times, leaving out the little corner pockets which hold a magnifying glass to relieve the strain of reading the closely typed wording in the telephone directory.

The first is a plain parchment with the wording printed slantingly across in black Indian ink. The border line is painted scarlet to match the scarlet cord.

The next sketch shows a futuristic pattern, either cretonne or fancy paper.

The third design is on a pale green paper background, and the figure and black tree cut from gummed paper and stuck in position.

This last type would be very suitable for a blotter, and the corner pocket could be used to slip in a book of stamps.

PAINTING ON GLASS

BEGIN by painting in the main—or largest parts of the design—add the smaller parts and finish off with the fine lines, these being put in with a fine pointed brush. The enamel for fine lines may need thinning slightly to enable it to work properly.

Be careful to apply sufficient enamel at the start to make it opaque, it is most unsatisfactory attempting to "touch up" afterwards.

Simplicity

As a rule a simple design in which no colour crosses another, is the most satisfactory but if this cannot be managed, the body or background colour should first be applied and after it has set hard, the second colour must be applied.

In the case of the bowl—or any similar pieces—the bordering bands should be applied last, after the main design has dried and set.

When the enamel has been applied, the work should be put in a cardboard box or the like to shield it from dirt and preferably be placed in a warm dry place and left untouched for a day or two to enable the enamel to harden. At least a week should be allowed to elapse before attempting to clean the glass inside and out. Remember that glass is non-absorbent and that the enamel must therefore dry and harden from the outside only, hence it takes much longer to get hard right through than it would if applied to wood; it may appear dry on the surface but be in fact quite moist under its outer skin.

Raised Work

When dry, inspect the work carefully by holding the glass to the light, if any of the enamel appears to be porous or defective it should be made good by a second application of enamel.



Fig. 10—A suitable maritime subject.



Fig. 6.

(Continued from our issue of February 9th).

Fig. 8.

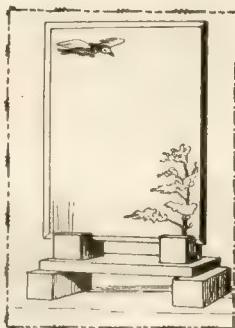
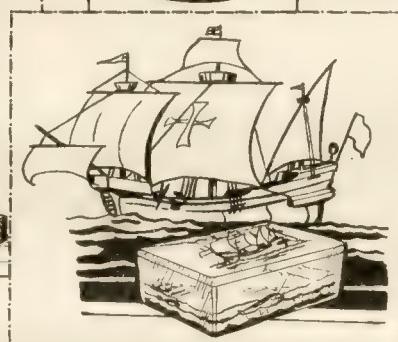


Fig. 7 (above) and
Fig. 9 (right)



lighten—the colour.

Thickened Enamel

If the enamel is intended to be used plain on some parts of the design and "raised" or thickened on others, two courses are open; either some "flake white" can be added to the enamel until it matches the "thickened" enamel, or a final coat of plain enamel can be given to the thickened parts after they have dried.

Some very beautiful effects are possible with this thickened enamel as by applying several coats—after each previous coat has dried and hardened—an effect of modelling in low relief can be obtained.

One example is a plain vase or jar—enamelled say a powder blue on the inside—after the outside has been decorated with figures or some other design.



Fig. 11—A Powder Bowl in Chinese style.

Painting on Glass—(continued)

This aspect of enamelling on glass gives results somewhat akin to Wedgwood ware, but is capable of many different interpretations.

For example, the simple photograph stand, Fig. 6, can be developed from "Hobbies" design No. 1907, the wooden stand being cut out of fretwood and finished off as usual and then enamelled or if preferred stained and wax polished and the design then enamelled on the surface of the glass. This sets off the photograph which is applied in silhouette to the back of the glass.

A Table Mirror

In like manner, a small table mirror as in Fig. 7 can be treated on similar lines, but the design in this case should be floral, or of such a nature that its own reflection in the mirror back will not be detrimental. When enamelling on a mirror the design cannot be pasted on the back, consequently the enamel must be applied "free-hand"—that is, without a fixed outline such as that provided by a design pasted behind the glass, which, of course, shows through perfectly clearly and makes the work of enamelling a very simple matter of filling in the outlines.

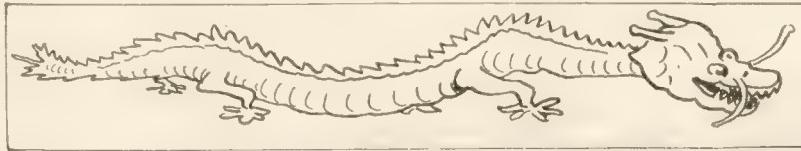


Fig. 12—A suitable and striking motif which can be easily done.

To conclude, one example of raised work is given—although a plain monochrome illustration conveys very little of the beauty of the finished article.

A Galleon

For this purpose a marine subject as in Fig. 9, comprising an old-time galleon done in gay colours on the lid of an oblong blue glass box is very effective, the sides being decorated in green wavy lines, as in Fig. 10 and relieved by a fish or sea monster done in red and silver.

Another effective scheme applicable to a round powder bowl with lid, is to work a Chinese dragon in vivid reds, greens and gold around the bowl—as in Figs. 11 and 12 and to decorate the lid with bands of green and gold. The interior is enamelled black after the outside has dried—which can be done quite easily first by brushing on the enamel as evenly as possible and then pouring a quantity

into the bowl and carefully rotating it to ensure a uniform and smooth coating.

An expanded drawing of the dragon motif suitable for tracing is given in Fig. 12, but should be drawn of such length as will most conveniently suit the size of the bowl.

On Drinking Glasses

Some particularly effective schemes can be worked out in conjunction with plain coloured glassware; for example—a set of plain coloured "lemonade" or cocktail glasses can be transformed by adding wavy bands of enamel on the lines of the design in Fig. 8, which with a little practice can be done freehand without preparing a paste-on design. The jug could of course be done "en suite" or treated separately with a more elaborate design embodying the wavy band motif.

The dragon body should be built up with thickened enamel and be more or less modelled as this greatly enhances the effect. If reasonably well done, this simple treatment will result in a distinctive possession of remarkably fascinating appearance, due partly to the raised enamel and also in no small measure to the glistening and rich colour of the black enamel when seen through the glass.

A Wool Winder—(continued from page 508)

dowel pin rests in them firmly.

A good plan is to have a wide piece of wood, mark a centre line down it, drill holes with the brace and bit, and then cut the wood in two to form the two arm pieces. It is essential to get the edges of these little semicircles shaped so the "jockey" pieces or wool holder holds securely upright. These "jockey" pieces can be put in place on the arms, either before or after the latter are fitted to the central column.

The arms are fixed with a pivot pin (as shown by the detail) which can be a thin french nail or a piece of strong wire. To prevent the arms falling too far the ornamental top shown as a capping piece is cut. It is fretted and then glued to the central column with the

indented portions over the arms. Thus the arm can be raised to stand upright and yet will not fall too far when put in horizontally. This capping piece should be screwed as well as glued because it takes all the pressure of the extended arm.

The Winder is now complete, when a hole is bored on the underside of the base, just deep enough to take the spindle in the weighted base. This hole must be bored straight and a little less deep than the length of the projecting spindle in the base. The upper part should not actually rest on the lower wooden part but merely revolve on the centre spindle.

Those, of course, who can undertake poker work may prefer to decorate the central standard and the platform by this method, than fretwork.

MATERIAL SUPPLIED

For making this Wool Winder, a parcel of suitable Mahogany, plywood and whitewood, including thin round rod for the jockeys and a short length of stiff wire for pivot pin costs 1/9. Obtainable from branches of Hobbies Ltd. or sent post free for 6d. extra from Dereham, Norfolk.

FILM NOTES

Shirley Temple's Wages

I EXPECT you fellows always like to hear about anyone of your own age who has the great good fortune to make a hit in film work. That's a wonderful thing, you know, for it means that his or her future is assured, at least so far as money is concerned. I have just been reading a letter from Shirley Temple, the 5-year old girl who is rapidly making a big name for herself in American pictures. She has been earning £30 a week—yes, I know that's a lot, but wait till you hear the rest. Shirley had a feeling that she was becoming popular, so she calmly asked the big film chiefs to give her a rise of £470 a week!

"No, we can't do that," they replied. "But we're willing to give you a contract at £250 a week."

That's not what I really meant to tell you about, but it will just give you an idea of the amazing things that happen in filmland.

Rising Boy Actor

YOU remember my description of the work on the naval adventure film, "For Ever England," recently? Well, Able Seaman Brown had a pal in this picture—you'll see him on the screen—name Ginger. Actually, he is Jimmy Hanley, 15 years of age, and after two weeks on location afloat in H.M.S. Curacao at Falmouth, and a further week aboard H.M.S. Broke at Devonport, Jimmy knows secrets of ships and sailing, gunfire and torpedoes, which are calculated to delight the heart of any healthy young English boy.

In short, Jimmy created such a profound impression through his work in this picture that Gaumont British have just asked him to sign a contract which gives them an

option on his services for the future.

"Gee, I'm bucked," Jimmy told me when I met him on his return to the studios. "But I'll let you into a secret, though you can tell 'Hobbies Weekly' readers if you like. My great ambition is to

Earning £20 a week — A farm for his mother — Flying to Fame

succeed in aviation. I am tremendously interested in aeroplanes, and I only want the money from my film career as a means of fixing up my mother with a farm, deep in the heart of the country."

That's a very creditable intention, and I hope he sees his way clear to carry it out in the near future. Incidentally, Jimmy is a promising young boxer, and

the sea, he swam in the not-too-warm waters of Gerran's Bay and Portland Harbour for long periods.

"Tailspin Tommy"

YOU'D be surprised at the trouble some directors have in finding players to fill roles. Universal have just commenced to produce a serial under the above title, that deals with the adventures of a boy aviator.

The problem in casting the title part in "Tailspin Tommy" lay in finding the player who had the necessary good looks and acting ability to carry the leading part, and, at the same time, could pilot a plane. Louis Friedlander, the director, combed the airports and flying schools of the West Coast to find such a youth among the student fliers. He flew right across the continent, spent three days in New York, and then returned to the Universal studio to report failure.

You can imagine what he felt like. There was the production unit, all ready to start work on the film, and no "Tailspin Tommy." Then a young fellow who had been taking flying lessons strolled across the lot, and introduced himself to Mr. Friedlander.

"I certainly like the look of you," said the director. "Let's see what you can do." So the young fellow, whose name is Maurice Murphy, jumped into a 'plane, flew round for a bit, landed, and jumped out.

"Right," said the director, who had been watching him. "You're 'Tailspin Tommy' from now on."

And so another young actor found fame in a flash.—

The Cinefan



A vivid close-up of John Mills at bay in the naval drama, "For Ever England."

although he only learnt to swim three months ago, he showed great skill during the production of "For Ever England," when for scenes in which he is rescued from

Any reader wanting to join The Hobbies League should write for the interesting booklet telling you all about it. It is free on request to The Registrar, The Hobbies League, Dereham, Norfolk.

MISCELLANEOUS ADVERTISEMENTS

The small "to sell" or "wanted" announcements appearing below are accepted from readers who want to sell anything except fretwork goods, or from usual advertisers of bargains of interest. The advertisements are inserted at the rate of 2d. per word. Name and address are counted, but initials or groups, such as E.P.S. or £1/11/6 are accepted as one word. Postal Orders and Stamps must accompany the order.

We cannot guarantee any date for these to appear, but they will be inserted in the earliest issue.

PATENTING INVENTIONS. Advice free.—King's Patent Agency Ltd., 146H Queen Victoria Street, E.C.4.

BAND GUIDE free. Drums, Flutes, Bugles.—"Potters," 36 West Street, London, W.C.2.

FREE, if Sheets asked during March, 100 different, includes Hawaii, Confederate States, St. Helena, Sierra Leone, Jubilee Cyprus. Cat. 1/-—H. McAuslan, Stepps, Glasgow.

500 World-wide Stamps 6d.—Way, Cheadle-Hulme, Cheshire.

BUMPER PACKET FREE! Contains 100 different Stamps, including Pictorial, Scarce Stamps, Map, Ship, Native, Air mail, etc., Request approvals.—J. F. Smith, 19, Rougemont Avenue, South Morden, Surrey.

READY-TO-FIT DOORS simplify cabinet making. 8ins. by 9ins., 3/3 pair. Also larger sizes.—Hobbies Ltd., Dereham and Branches.

CAERMORFA CASTLE—see article this issue—£10 or nearest offer—Major Gadd, 26 Rosemead Av., Pensby, Wirral, Cheshire.

CONCERTINA, mahogany case, 20 keys, 40 reeds, 5-fold bellows, 22/6. Unbeatable offer. Bagatelle complete, Gent's Dress Watch, or Simplex Typewriter presented free to all purchasers. State gift when sending.—Lewis, Office 43-44, George Street, Manchester 1. Limited to 100 gifts. Send now!

MOVIES AT HOME. How to make your own Cinema projector. Particulars free.—Moviescope (H), 116 Brecknock Road, London.

JIG-SAW GLUE for fixing pictures to wood. It has the grip of a giant. 6d. bottle.—Hobbies Ltd., Dereham and Branches.

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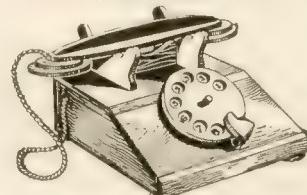
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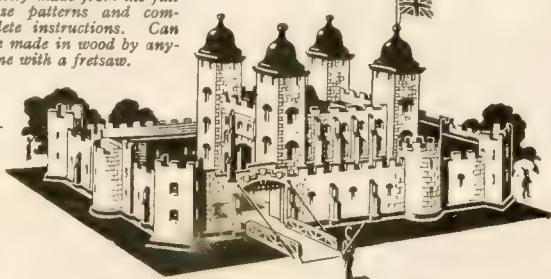
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STAMPED COLLECTIONS CORNER

Jean Henri Dunant

ON Dec. 1st, 1928 Switzerland issued a stamp bearing a portrait of Jean Henri Dunant. This is placed on the right of the stamp, while on the left there is a large red cross shining brightly, and below a very much bandaged figure. Quite a curious design to



see for a stamp, and surely one which brooks enquiry.

As every one knows, the red cross is a badge worn by those tending the sick and wounded, and here we have a reminder of how the organisation came about.

As a result of the description of the horrors of the Franco-Austrian war in J. H. Dunant's "Souvenir de Solferino" the Red Cross movement was founded. An international agreement was concluded in Geneva in 1864—this being known as the Geneva Convention.

During the late war many stamps were surcharged with a red cross and these were sold at a higher rate, the extra money going towards the work of the Red Cross Society, notably in France in August, 1914.

Sir Humphrey Gilbert

SIR Humphrey Gilbert was born about the year 1539 (the exact date of his birth is not known), near Dartmouth in Devon the son of a Devon gentleman and a half brother of Sir Walter Raleigh. In 1566 he petitioned Queen Elizabeth for a patent to discover the North West Passage (it may be recalled that Capt. Cook was

killed while attempting to find this from the Pacific Ocean).

The Charter was granted in 1578. Sir Humphrey sold all his property and left Dartmouth on his adventures, but very soon came up against the Spaniards, lost a vessel and returned home in 1579.

However, in 1583 he set out again, this time with five ships and took possession of Newfoundland where he established the first English Colony in America. In 1533 Newfoundland issued a set of 14 stamps commemorating the 350th anniversary of annexation, each stamp depicting some person, event, or object connected with Sir Humphrey Gilbert and his great task.

The 1 c. here illustrated shows a portrait of Sir Humphrey. He lost his life when returning to England in a ship of only 10 tons burden, "The Golden Hind" which capsized in a storm.

Captain John Smith

THE United States of America have on their 1907 issue commemorated one of the lesser known pioneers of English colonisation.

That he should be lesser known is a pity, because it was very greatly owing to his leadership that colonisation of New England was possible.

He was born in 1580 and went to Virginia in 1607 at the head of a party of settlers, but very shortly afterwards was captured by the Indians. His life, however, was dramatically saved, just as his



head was on the block by the intervention of Pocahontas an Indian Princess. Her portrait appears on the same stamp in the top left hand corner, whilst in the other corner is that of Powhatan. Pocahontas also has the 5c. stamp of the same issue to herself.

Smith explored the Potomac and Chesapeake Bay in 1608, and was made President of the Colony, but resigned the next year and returned to England. He was soon back, however, and mapped the coast of New England. After 1619 he devoted his life to writing accounts and drawing maps of his voyages until his death in 1631.

Johann Heinrich Pestalozzi

THE great and loving teacher was born in Zurich in 1746 and studied at that University. Every boy and girl at school should know something of him, for it is to a

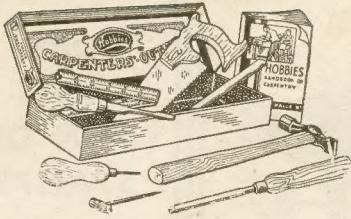
great extent to his efforts that we owe the more humane school-days of the present time.

He gathered together a number of destitute children and taught them—not by the more or less brutal methods of his day, but by love. In 1805 he was superintendent of the Institute at Yverdon and so spread his doctrine through the many foreign teachers who came to him for training during his twenty years there.

Froebel was one of his pupils, and founded his ideas of kindergarten teaching on Pestalozzi. It is fitting, there, that Switzerland should remember this fine man on her Pro Juventute or Child Welfare Christmas stamps. The four 1927 charity stamps issued show: 5c. Forsaken Orphan, 10c. Orphan at Pestalozzi school, 20c. and 30c. Pestalozzi himself.



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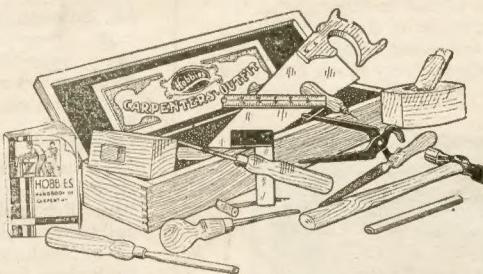
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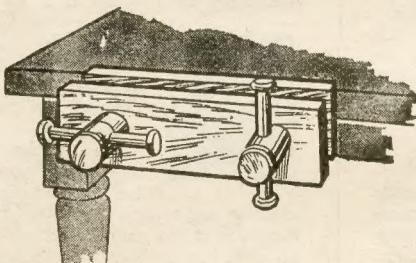
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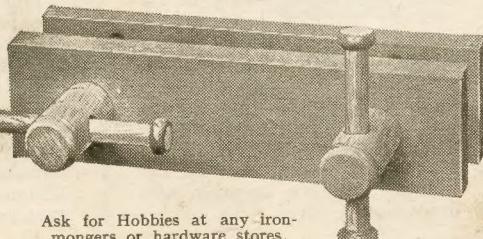
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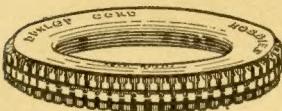
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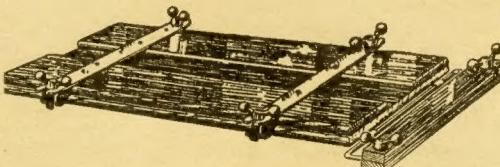
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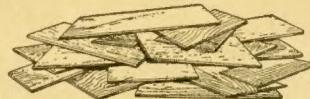
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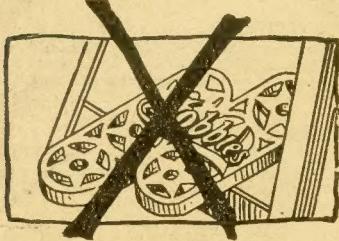
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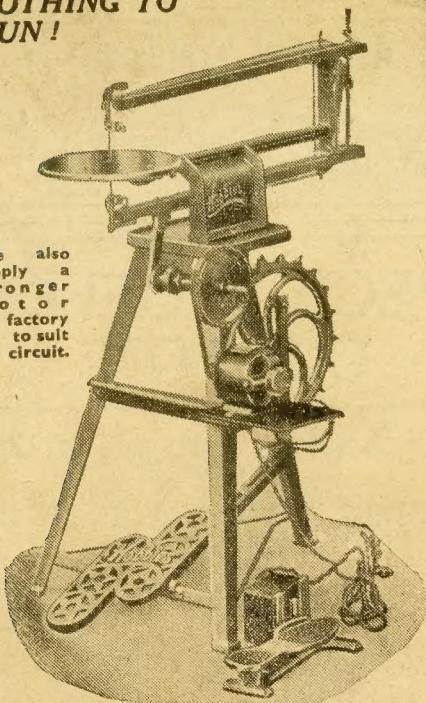
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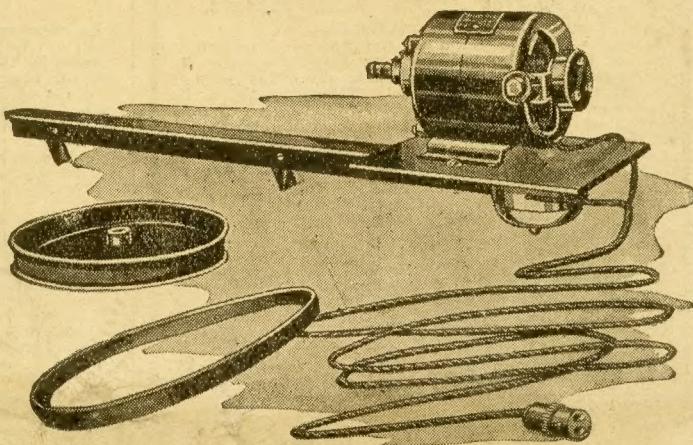
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